COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Northern Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

Covanta Alexandria/Arlington, Inc.
Alexandria, Virginia
Permit No. NRO71895

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Covanta Alexandria/Arlington, Inc. has applied for a Title V Operating Permit for its Alexandria facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact: _____ Date: 12/1/10
Elizabeth Aiken
(703) 583-3890

Air Permit Manager: _____ Date: 12/02/10
Terry H. Darton

Regional Director: _____ Date: 12·3·10
Thomas A. Faha

Event	Date	Initials
Code PSOA3	12/8/10	EA
Scanned		
QC		

FACILITY INFORMATION

Permittee
Covanta Alexandria/Arlington, Inc.
5301 Eisenhower Avenue
Alexandria, Virginia 22304

Facility
Covanta Alexandria/Arlington, Inc.
5301 Eisenhower Avenue
Alexandria, Virginia 22304

County-Plant Identification Number: 51-080-0139

SOURCE DESCRIPTION

NAICS Code: 562213 – Solid Waste Combustor and Incinerator. Covanta Alexandria/Arlington operates a large municipal solid waste (MSW) combustion facility with energy recovery. The facility maintains three 325 ton per day (nominal) waste combustion units with integrated reciprocating grate stokers and water wall boilers. Each combustor is also equipped with #2 fuel oil-fired auxiliary burners that are used during startup, shutdown, and malfunction, and to provide flame stabilization. Products of combustion from each combustor are controlled by good combustion practices, ammonia injection (selective non-catalytic reduction), a combination of spray dyer and fabric filter, and activated carbon injection to reduce nitrogen oxides (NO_x), carbon monoxide (CO), particulate matter (PM and PM-10), acid gases, metals and complex organics among others. Steam generated by the boilers drive turbines that generate electricity for sale to the local electric company.

The facility is a Title V major source of sulfur dioxide, nitrogen oxides, carbon monoxide, hydrogen chloride, hydrogen fluoride, dioxins/furans, lead compounds, arsenic compounds, antimony compounds, beryllium compounds, cadmium compounds, and mercury compounds. This source is located in a nonattainment area for ozone and PM 2.5, and an attainment area for all remaining criteria pollutants, and is a PSD major source. The facility is currently permitted under a PSD Permit issued on September 27, 2010, and a Minor NSR Permit issued September 27, 2010.

COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit, was conducted on September 16, 2009. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Municipal Waste Combustor Equipment							
001-01	001	Faber Combustion Unit Model # unknown (Construction Date Feb. 1988)	51.65 million Btu/hr	---	---	---	PSD Permit dated September 27, 2010; Minor NSR Permit dated September 27, 2010
001-02	001	Keeler/Dorr-Oliver municipal waste combustor with Martin stokers Model # MK 325 (Construction Date Feb. 1988)	121.8 million Btu/hr (Based on a higher heating value of 4500 Btu/lb for MSW)	Asea, Brown Boveri (ABB) Environmental Systems fabric filter Model # 266-14 ABB Environmental Systems spray tower absorber Field Constructed Activated Carbon Injection System Field Constructed Covanta designed Aqueous Ammonia Furnace Injection Field Constructed	01 02 03 13	Particulate Matter and Lead Sulfur Dioxide Mercury Nitrogen Oxides (as NO_2)	PSD Permit dated September 27, 2010; Minor NSR Permit dated September 27, 2010

002-01	002	Faber Combustion Unit Model # unknown (Construction Date Feb. 1988)	51.65 million Btu/hr	---	---	---	PSD Permit dated September 27, 2010; Minor NSR Permit dated September 27, 2010
002-02	002	Keeler/Dorr-Oliver municipal waste combustor with Martin stokers Model # MK 325 (Construction Date Feb. 1988)	121.8 million Btu/hr (Based on a higher heating value of 4500 Btu/lb for MSW)	Asea, Brown Boveri (ABB) Environmental Systems fabric filter Model # 266-14 ABB Environmental Systems spray tower absorber Field Constructed Activated Carbon Injection System Field Constructed Covanta designed Aqueous Ammonia Furnace Injection Field Constructed	05 06 07 14	Particulate Matter and Lead Sulfur Dioxide Mercury Nitrogen Oxides (as NO_2)	PSD Permit dated September 27, 2010; Minor NSR Permit dated September 27, 2010

003-01	003	Faber Combustion Unit Model # unknown (Construction Date Feb. 1988)	51.65 million Btu/hr	---	---		PSD Permit dated September 27, 2010; Minor NSR Permit dated September 27, 2010
003-02	003	Keeler/Dorr-Oliver municipal waste combustor with Martin stokers Model # MK 325 (Construction Date Feb. 1988)	121.8 million Btu/hr (Based on a higher heating value of 4500 Btu/lb for MSW)	Asea, Brown Boveri (ABB) Environmental Systems fabric filter Model # 266-14 ABB Environmental Systems spray tower absorber Field Constructed Activated Carbon Injection System Field Constructed Covanta designed Aqueous Ammonia Furnace Injection Field Constructed	09 10 11 15	Particulate Matter and Lead Sulfur Dioxide Mercury Nitrogen Oxides (as NO_2)	PSD Permit dated September 27, 2010; Minor NSR Permit dated September 27, 2010
Storage Silos							
004-01	004	Carbon Silo Storage Silo with pneumatic transfer of material (Construction Date Feb. 1988)	2010 ft^3/hr	Fabric Filter	16	Particulate Matter	PSD Permit dated September 27, 2010; Minor NSR Permit dated September 27, 2010

005-01	005	Lime Silo Storage Silo with transfer of lime slurry (Construction Date Feb. 1988)	2548 ft^3/hr	Fabric Filter	17	Particulate Matter	PSD Permit dated September 27, 2010; Minor NSR Permit dated September 27, 2010
007-01	007	Dolomitic Lime Silo Storage Silo with pneumatic transfer of material (Construction Date Dec. 2003)	973 ft^3/hr	Fabric Filter	18	Particulate Matter	Minor NSR permit dated September 27, 2010
Storage Tanks							
006-01	006	Underground Storage Tank for fuel oil (Construction Date Feb. 1988)	20,000 gallons	---	---	---	---

* The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

EMISSIONS INVENTORY

A copy of the 2009 annual emission update is attached as Attachment A. Emissions are summarized in the following tables.

2009 Actual Emissions

Criteria or Hazardous Air Pollutant	Tons per Year
CO	82.061
NO_x	496.775
PM-10	1.479
PM	2.845
SO_2	7.740
VOC	2.275
Lead	0.067
Hydrogen Chloride	7.046
Hydrogen Fluoride	0.209

EMISSION UNIT APPLICABLE REQUIREMENTS –

Municipal Waste Combustor Equipment Requirements – (Emissions Units 001-01, 001-02, 002-01, 002-02, 003-01, and 003-02)

There are three primary regulatory mechanisms that form the basis of the majority of applicable requirements in this permit. They are the PSD permit issued September 27, 2010, the Minor NSR permit issued September 27, 2010, and Virginia State Air Pollution Control Board Rule 4-54 – Emissions Standards for Large Municipal Waste Combustors.

Rule 4-54, was promulgated on August 4, 1999, to carry out EPA's mandate to regulate existing (construction commenced on or before September 20, 1994) large MWCs as defined by Emission Guideline, Subpart Cb. EPA took direct final action approving Rule 4-54 on October 29, 2004 making it federally enforceable. Rule 4-54 established emission limits, and monitoring, operating and recordkeeping requirements. It includes concentration-based emission limits for several criteria and hazardous air pollutants, establishes operating parameter limits on steam production, fabric filter inlet temperature and mercury injection system activated carbon feed. It also requires continuous and periodic compliance demonstration mechanisms including continuous emissions monitoring, operating parameter monitoring, performance testing, and record keeping and reporting.

Limitations

The following applicable limitations are requirements from Conditions 4, 6 through 9, 12 through 26, 172, 173, 178, 182, and 183 of the major PSD Permit issued September 27, 2010. A copy of the permit is attached as Attachment B.

Condition 4: PM emissions from the municipal waste combustors shall be controlled by fabric filters.

Conditions 6: Approved fuel for the municipal waste combustors are municipal solid waste and No. 2 fuel oil. No. 2 fuel oil shall be used as an auxiliary fuel during low Btu firing conditions and light-

off.

Condition 6A: No. 2 fuel oil shall not exceed a sulfur limit of 0.5%. When incorporated into the Title V, the requirement for the No. 2 fuel oil to meet ASTM specifications was updated from D396-78 to D396-98, which is the current ASTM incorporated by reference into the Commonwealth of Virginia State Air Pollution Control Board's (Board) Regulations for the Control and Abatement of Air Pollution (Regulations).

Condition 8: No. 2 fuel burners shall be used to maintain appropriate furnace temperatures.

Condition 9: Emission concentration limits for PM, CO, SO_2, NO_x, HCL, cadmium, lead, mercury, and dioxins/furans for each municipal waste combustor (MWC). The NO_x and CO emission concentration limits are based on the facility's MWCs being mass burn waterwall MWCs, which are defined as a field erected combustion unit having energy (heat) recovery in the furnace (i.e. radiant heat transfer section) of the combustor.

Condition 12: Visible emissions limit of 10% opacity (6-minute average) for each municipal waste combustor.

Condition 13: Fugitive dust/emissions standards for each municipal waste combustor and the ash conveying system.

Condition 14: Annual steam production limit of 1,170,400 tons.

Condition 15: Four-hour average steam load level shall not operate greater than 110% of the maximum demonstrated MWC unit load.

Condition 16: Four-hour average temperature, measured at each fabric filter, shall not exceed 17°C (30.6°F) above the maximum demonstrated fabric filter temperature.

Condition 17 - 26: Operator training and certification requirements for MWC units.

Condition 20 – Removed allowance for a "provisionally certified chief facility operator or provisionally certified shift supervisor" scheduled to take the full certification exam according to the schedule specified in 9 VAC 5-40-8110.B.1. This date (August 1, 2000) has passed.

Condition 172-173: Startup, shutdown, and malfunction provisions for MWC units. MWC unit capacity.

Condition 178: Not a RCRA permit.

Condition 182: Facility or control equipment malfunction requirements for hazardous air pollutant processes such as MWC units.

Condition 183: Ambient air quality standards.

The following applicable limitations are requirements from Conditions 6, 7, 10, and 11 of the Minor NSR Permit issued September 27, 2010. A copy of the permit is attached as Attachment C.

Condition 6: Definition of acceptable municipal solid waste.

Condition 7: Annual steam production limit of 1,170,400 tons.

Condition 10: Emission limits for PM, PM_{10}, CO, SO_2, NO_x, VOC, HCL, MWC Metals, MWC acid gasses, cadmium, lead, mercury, dioxins/furans, H_2SO_4, and beryllium for each municipal waste combustor.

Condition 11: Total Emission limits for PM, PM_{10}, CO, SO_2, NO_x, VOC, HCL, MWC Metals, MWC acid gasses, cadmium, lead, mercury, dioxins/furans, H_2SO_4, and beryllium from the MWC plant.

The following specific emission requirements in the Code of Federal Regulations (CFR) have been determined to be applicable:

40 CFR 60, Subpart C – National Emission Standards for Beryllium. Covanta does not believe this regulation is applicable to the facility because they say beryllium-containing waste is not accepted by the facility and they cite an EPA Region IV guidance letter dated April 6, 2000 and the attached memo dated July 16, 1979 regarding beryllium. Thus, Covanta Alexandria/Arlington, Inc. did not include it as an applicable requirement in their Title V application. The VA DEQ believes the beryllium NESHAP is still applicable and will be included in their TV permit unless:

- The DEQ receives letters from all Covanta's customers (waste generators) that there is not any beryllium in their waste; or
- Covanta writes a letter to EPA Region III requesting a variance and a variance is granted; or
- Covanta writes a letter to EPA Region III asking if they concur with the memo from Region IV and the attached memo dated July 16, 1979. If Region III agrees, the VA DEQ would need a letter from Covanta stating that they do not accept waste from foundries, extraction plants, ceramic plants, or propellant plants.

Monitoring

The monitoring requirements in Conditions 115 through 135 of the PSD permit meet Part 70 periodic monitoring requirements. These permit conditions are based on New Source Performance Standards (NSPS), 40 CFR 60, proposed after November 15, 1990. The permit conditions now cite Standards of Performance for Municipal Waste Combustors, Rule 4-46 of the State Regulations since EPA approved this rule into Virginia's 111d plan on October 29, 2004, making it federally enforceable. Additional monitoring conditions have been added to account for 40 CFR 61 Subpart C.

The permittee will monitor differential pressure drop across each fabric filter on an ongoing basis. The continuous opacity monitor will be used as an indicator of proper operation of the fabric filter.

A continuous emission monitoring system (CEMS) shall be installed, calibrated, maintained, and operated to record the output of the system by measuring the oxygen or carbon dioxide content of the flue gas at each location where CO, SO_2, or NO_x, are monitored. A CEMS for CO shall be installed, calibrated, maintained, and operated at the combustor outlet to record the output of the system. The continuous monitoring system requirements for NO_x, SO_2, and opacity are listed in the testing section because Rule 4-54 of the SAPCB Regulations classifies it under the testing and procedures section.

To determine compliance with MWC load level requirements there is a steam flow meter to measure steam in kg/hr (kilopounds/hr) on a continuous basis and record the output of the monitor. Steam flow shall be calculated in four-hour block arithmetic averages. All signal conversion elements associated with steam measurements must be calibrated before each dioxin/furan test and at least once per year.

To determine compliance with the maximum particulate matter control device temperature requirements there is a device to measure on a continuous basis the temperature of the flue gas stream as the inlet to each particulate matter control device. Temperature shall be calculated in four-hour block arithmetic averages.

Recordkeeping

Recordkeeping requirements for the MWCs are listed in Conditions 137 through 151 of the PSD permit. The following records are required to be maintained:

- The emissions concentrations and parameters measured using CEMS.
- When any of the average emission concentrations, percent reduction, operating parameters, or the opacity are above applicable limits, the calendar dates, reason for exceedance, and description of corrective action taken.
- Average carbon mass feed rate during all annual performance tests for mercury, for each hour of operation, calendar quarter. The average carbon mass feed rate shall be based on a 6-hour average or the total sampling time of the most recent annual performance test for mercury.
- Calendar dates for which the minimum number of hours of SO_2, NO_x, and CO emissions data, MWC unit load data and PM control device temperature data were not obtained along with reasons for not obtaining data and description of corrective action.
- Each occurrence where SO_2, NO_x, and CO emissions data, MWC unit load data and PM control device temperature data were excluded from the calculation of average emission concentration or parameter and the reason for excluding the data.
- Results of the daily drift test and quarterly accuracy determinations for SO_2, NO_x, and CO CEMS.
- Results of all annual performance tests.
- Operator training and certification records.
- Calendar dates of when the average activated carbon mass feed rates are less than the hourly activated carbon mass feed rates estimated during the performance tests for mercury emissions and reason for such feed rate and description of corrective action taken.
- Calendar dates of when the activated carbon injection system operating parameters are below the levels estimated during the performance tests with reasons for occurrences and a description of corrective action taken.
- Format of records.
- Amount of No. 2 fuel oil used as auxiliary fuel in each of the furnace/municipal waste combustors.
- All scale house receipts and a log of daily pit inventory estimations.
- Annual steam production.
- A copy of the maintenance schedule and records of scheduled and unscheduled maintenance and operator training.

Testing

Continuous Emissions Monitoring Systems (CEMS) for NO_x and SO_2 shall be installed, maintained, calibrated, and operated at the combustor outlet to record the output of the system. A Continuous Opacity Monitoring System (COMS) shall be installed, calibrated, maintained, and operated to measure opacity.

Following the date the initial performance tests for SO_2, NO_x, CO, PM, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, sulfuric acid mist, and fugitive ash emissions are completed, a performance test on an annual basis shall be conducted (no more than 12 calendar months following the previous performance test). Beryllium testing shall be conducted annually also. All performance tests shall consist of a minimum of three test runs conducted under representative full load operating conditions. The average of the three test runs will be used to determine compliance.

If performance tests over a two year period indicate dioxin/furan emissions less than 15 ng/dscm for all MWC units, the owner may choose to conduct dioxin/furan performance tests for one MWC unit a year. At minimum, a performance test for dioxin/furan for one MWC unit shall be tested annually. Each year a different MWC unit will be tested in sequence. If any annual performance test indicates emission levels greater than 15 ng/dscm of dioxins/furans, dioxin/furan performance tests shall be conducted on all MWC units.

According to EPA document No. 0106-00-002-002 "Municipal Waste Combustion: Background Document for Federal Plan – Public Comments and Responses," page 9-1, the carbon injection feed rate established during the performance test is not an instantaneous average. The baseline carbon feed rate is based on the average feed rate during mercury (or dioxin) performance test. At the Covanta Alexandria/Arlington facility activated carbon is used primarily to control mercury. The total sampling time for the initial performance test for mercury was 6 hours. The total sampling time for the dioxin/furan performance test is 12 hours. Therefore, DEQ included in the permit that the carbon mass feed rate should be based on a 6-hour average or the total sampling time of the most recent annual performance test for mercury.

Method 1 shall be used to select the sampling site and number of traverse points. Method 3, 3A, or 3B, as applicable, shall be used for gas analysis. Alternative methods as approved by the DEQ on a case-by-case basis may be used.

Pollutant	Test Method (40 CFR 60, Appendix A)
VOC	EPA Methods 18, 25, 25a
NO_x	EPA Method 19
SO_2	EPA Method 19
CO	EPA Methods 10, 10a, 10b
PM/PM_{10}	EPA Method 5
Visible Emissions	EPA Method 9
Fugitive Ash	EPA Method 22
Dioxin/Furan	EPA Method 23
Hydrogen Chloride	EPA Methods 26, 26a
Cadmium	EPA Method 29
Lead	EPA Method 29
Beryllium	EPA Method 104 (103 approved alternative)
Mercury	EPA Method 29
Sulfuric Acid Mist	EPA Method 8
$PM_{2.5}$	EPA OTM 27 and OTM 28, or approved equivalent

The department and EPA have the authority to require additional testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

The permit includes requirements to submit excess emissions reports, annual and semi-annual reports.

The annual reports shall include:

- Annual emissions and certification of compliance with facility annual permit mass emission limitations.
- Demonstrate compliance with all the lb/MMBtu and lb/hr emission limitations; or for HCL, SO_2, and mercury the percent removal requirements.
- Document that the actual CO emissions have not increased more than 99 tpy from an average of 1998 & 1999 facility-wide actual CO emissions of 46.5 tpy, calculated on a cumulative basis.

The semi-annual report shall include:

- PM, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, sulfuric acid mist, and fugitive ash emission levels during performance tests.
- Highest emission level recorded for SO_2, NO_x, CO, MWC unit load level, and particulate matter control device temperature data.
- Highest opacity level measured.
- Total number of days the minimum number of hours of data for SO_2, NO_x, CO, MWC unit load level, and particulate matter control device temperature were excluded from the calculation of average emission concentrations or parameters.
- Submit additional information if any recorded pollutant or parameter does not comply with the pollutant or parameter limit specified in this permit.
- Carbon injection system operating parameters that indicate carbon mass feed rate.

General Comments

Rule 4-54, Standards of Performance for Municipal Waste Combustors, of the Commonwealth of Virginia State Air Pollution Control Board's Regulations for the Control and Abatement of Air Pollution was approved by the EPA on October 29, 2004. All references in the permit have been changed from citing 40 CFR 62, Subpart FFF to Rule 4-54, which is the state's 111D plan implementing the requirements of 40 CFR 60, Subpart Cb.

Requirements for Storage Silos – (Emission Units 004-01, 005-01, and 007-01)

Limitations

The following applicable limitations are requirements from Condition 4A, 10A and 13A of the major PSD Permit issued on September 27, 2010. A copy of the permit is attached as attachment B.

Condition 4A: Particulate matter emissions from the carbon and lime silos shall be controlled by fabric filters.

Condition 10A: Particulate matter emission limit.

Condition 12A: Visible emission limit of 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity.

The following applicable limitations are requirements from Condition 3 of the Minor NSR Permit issued on September 27, 2010. A copy of the permit is attached as attachment C.

Condition 3: Particulate matter from the Dolomitic lime silo shall be controlled by fabric filter.

Monitoring

There is no monitoring for the visible emission requirement for the storage silos. Operation of the storage silos with fabric filters that have been properly maintained should not cause an exceedance of the visible emission limit.

Testing

This section of the permit does not require source tests. A table of test methods has been included in this section of the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Requirements for Storage Tank – (Emission Unit 006-01)

Recordkeeping

The permit includes requirements for maintaining records of the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.

Facility Wide Conditions

Reporting
The permittee shall notify the DEQ of the intention to shutdown or bypass air pollution control equipment for necessary scheduled maintenance, which results in excess emissions for more than one-hour, at least 24-hours prior to shutdown.

STREAMLINED/OBSOLETE REQUIREMENTS

Certain Conditions of the previously issued PSD permit for the source are obsolete, no longer serve any meaningful purpose, and are unnecessary for TV considerations. These Conditions are as follows:

Condition 13A has not been included. This requirement is from 40 CFR 60, Subpart E which is no longer applicable to this facility.

Conditions 35, 56, 63, 70, 80, 86, 95 and 108 have not been included. Initial performance tests for SO_2, NO_x, CO, PM, cadmium, lead, mercury, dioxins/furans, hydrogen chloride and fugitive ash emissions have already been performed.

Condition 105 requires that the procedures in Conditions 106 through 109 be used to determine compliance with the fugitive ash emission limit. Condition 105 has not been included because the other referenced permit conditions are self-explanatory and can be used to determine compliance with the fugitive ash emission limit.

Condition 115 has not been included. The requirements of 9 VAC 5-40-40 are already covered in the monitoring section of the permit. A permit condition was added that the permittee shall comply

with the applicable general provisions of 40 CFR 60.

Condition 119 has not been included. The initial performance tests have already been performed.

Condition 124 requires that the procedures in Conditions 125 through 135 be used to determine compliance with the CO emission concentration limit. Condition 124 has not been included because the other referenced permit conditions can be used for credible compliance determinations.

Condition 125 has not been included because the four-hour block arithmetic average requirement for CO is already incorporated into the emission concentration limit permit condition (PSD permit condition 9).

Condition 136 has not been included. The recordkeeping and reporting requirements of 9 VAC 5-40-50 are already covered in the permit except for 9 VAC 5-40-50B. A permit condition was added citing 9 VAC 5-40-50B, which requires that the permittee shall maintain records of startup, shutdown or malfunction. Another permit condition was added citing 9 VAC 5-40-50.A.2, which requires that the permittee shall submit notification to the DEQ thirty days in advance of a proposed emission test that will be used to comply with an emissions standard.

Condition 170 has not been included. The initial performance test report has already been submitted.

Condition 171, which references 9 VAC 5-40-20 has not been included. 9 VAC 5-40-20.A.3 is not included in the SIP and therefore cannot be referenced or cited in Title V permits. 9 VAC 5-50-20 is cited in General Condition O of the permit and addresses startup, shutdown and malfunction requirements.

Condition 174 states that 40 CFR 62 Subpart FFF applies to the extent it does not conflict with Rule 4-54 of State Regulations. Since Rule 4-54 was approved and incorporated into the 111d plan in 2004 and is federally enforceable, Subpart FFF is no longer applicable therefore this permit condition was not included.

Condition 175 has not been included. The compliance schedule listed in 40 CFR 62.14108 has past and been achieved.

Condition 176 has not been included. The compliance schedule for the municipal waste combustor operator training and certification requirements have past and been achieved.

Condition 188 has not been included. The requirements in the disclaimer condition are already covered in the Title V permit. A generic condition was included which requires that the permittee shall comply with all the applicable requirements of 40 CFR 61 Subpart C. 40 CFR 60 Subparts Db and E and 40 CFR 62 Subpart FFF are no longer applicable to this facility. General Condition R.1 – Reopening for Cause addresses that the Title V permit can be reopened prior to expiration if additional applicable federal requirements become applicable to a major source with a remaining permit term of three years or more.

The following NESHAP requirement has not been included for the reasons provided:

40 CFR 61.32(a) – NESHAP Subpart C requires that beryllium emissions for each municipal waste combustor not exceed 10 grams over a 24-hour period. 10 grams over a 24 hour period is equivalent to 9.17E-4 lb/hr based on a 24-hour period and 2.75E-3 lb/hr based on an 8-hour

operating period. This NESHAP Subpart C requirement was not included in the permit because Condition 10 of the PSD permit was included which requires a more stringent emission limit of 6.0E-5 lb/hr.

The following Virginia State Air Pollution Control Board (SAPCB) Regulation has not been included for the reasons provided:

9 VAC 5-40-80 was not included. This SAPCB Regulation requires that visible emissions shall not exceed 20% opacity, except for one six-minute period in any one hour of not more than 60% opacity. 9 VAC 5-40-8060 requires 10% opacity (6-minute average) shall not be exceeded. This Rule 4-54 requirement was included in the permit because it is more stringent than 9 VAC 5-40-80.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions, including those caused by upsets, within one business day.

Comments on General Conditions

B: Permit Expiration

This condition refers to the Board taking action on a permit application. The Board referred to is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.1-20.01:2 and §10.1-1185 of the *Code of Virginia,* and the "Department of Environmental Quality Agency Policy Statement NO. 3-2001."

This general condition cites the entire Article(s) that follow:
B.2. Article 1 (9 VAC 5-80-50 et seq.), Part II of 9 VAC 5 Chapter 80. Federal Permits for Stationary Sources
B.3. Article 1 (9 VAC 5-80-50 et seq.), Part II of 9 VAC 5 Chapter 80. Federal Permits for Stationary Sources

This general condition cites the sections that follow:

B.	9 VAC 5-80-80. "Application"
B.2.	9 VAC 5-80-150. "Action on Permit Applications"
B.3.	9 VAC 5-80-80. "Application"
B.4.	9 VAC 5-80-80. "Application"
B.4.	9 VAC 5-80-140. "Permit shield"
B.5.	9 VAC 5-80-80. "Application"

F. Malfunction as an Affirmative Defense

Section 9 VAC 5-20-180 requires malfunction and excesses emissions reporting within four hours. Section 9 VAC 5-80-250 also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to this section including Title V facilities. Section 9 VAC 5-80-250 is from

the Title V regulations. Title V facilities are subject to both Sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four day time business hours of the malfunction.

An additional sentence will be added to this condition referencing that excess emissions for NO_x, SO_2 and CO for more than one hour shall be based on the averaging period in PSD Permit Condition #9 and the emission limits in PSD Permit Condition #10.

In order for emission units to be relieved from the requirement to make a written report in fourteen days the emission units must have continuous monitors and the continuous monitors must meet the requirements of 9 VAC 5-50-410 or 9 VAC 5-40-41.

This general condition cites the sections that follow:

F.	9 VAC 5-40-50.	Notification, Records and Reporting
F.	9 VAC 5-50-50.	Notification, Records and Reporting
F.1.	9 VAC 5-40-50.	Notification, Records and Reporting
F.1.	9 VAC 5-50-50.	Notification, Records and Reporting
F.2.	9 VAC 5-40-50.	Notification, Records and Reporting
F.2.	9 VAC 5-50-50.	Notification, Records and Reporting
F.3.	9 VAC 5-40-50.	Notification, Records and Reporting
F.3.	9 VAC 5-40-41.	Emissions Monitoring Procedures for Existing Sources
F.3.a.	9 VAC 5-40-41.	Emissions Monitoring Procedures for Existing Sources

This general condition contains a citation from the Code of Federal Regulations as follows:
F.2.a. 40 CFR 60.13 (h). Monitoring Requirements.

U: **Malfunction as an Affirmative Defense**

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in section 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on general condition F.

This general condition cites the sections that follow:

U.2.d. 9 VAC 5-80-110. Permit Content
U.2.d. 9 VAC 5-20-180. Facility and Control Equipment Maintenance or Malfunction

FUTURE APPLICABLE REQUIREMENTS

There are no future applicable requirements at this time.

INAPPLICABLE REQUIREMENTS

The requirements of 40 CFR Part 60, Subpart Ea are not currently applicable to this facility because the

facility was not constructed between December 20, 1989 and September 20, 1994.

New Source Performance Standard (NSPS) requirements, for Large Municipal Waste Combustors for which construction is commenced after September 20, 1994, or for which modification or reconstruction is commenced after June 19, 1996, in 40 CFR Part 60, Subpart Eb, are not currently applicable to the facility. According to NSPS Subpart Cb, physical or operational changes made to an existing municipal waste combustor unit primarily for the purposes of complying with NSPS Subpart Cb are not considered in determining whether the unit is a modified or reconstructed facility under NSPS Subpart Eb.

National Emission Standards for Hazardous Air Pollutants (NESHAP) for Mercury in 40 CFR Part 63, Subpart E, are not currently applicable to the facility. Covanta Alexandria/Arlington does not incinerate wastewater treatment plant sludge.

The requirements of 40 CFR 60, Subpart Db are no longer applicable to this facility. See Federal Register dated February 27, 2006.

The requirements of 40 CFR 60, Subpart E are no longer applicable to this facility. See Federal Register dated May 10, 2006.

The requirements of 40 CFR 64 – Compliance Assurance Monitoring are not applicable to this facility. The facility is exempt per 64.2(b)(i) – see note below.

No inapplicable requirements were identified by the applicant in the permit application.

COMPLIANCE PLAN

Covanta of Alexandria/Arlington, Inc. is currently in compliance with all applicable requirements. No compliance plan was included in the application or in the proposed permit.

COMPLIANCE ASSURANCE MONITORING (CAM)

CAM is not required at this facility for the following reasons:

- Municipal Waste Combustors constructed on or before September 20, 1994 in the Commonwealth of Virginia are subject to 9 VAC Chapter 40m Article 54: Emission Standards for Large Municipal Waste Combustors. Article 54 was written in accordance with section 111(d) and section 129 of the Clean Air Act. EPA took direct final action approving Rule 4-54 on October 29, 2004 making it federally enforceable. Part 64 – Compliance Assurance Monitoring established exemptions under 40 CFR 64.2 (b). Specifically, 40 CFR 64.2(b)(1)(i) states the requirements of Part 64 shall not apply to emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the ACT. As a result, pollutants regulated under Rule 4-54 are exempt from CAM. These are particulate matter (PM), mercury (Hg), cadmium (Cd), lead (Pb), Carbon Monoxide (CO), sulfur dioxide (SO_2), hydrogen chloride (HCl), dioxins/furans (TCDD/TCDF), and nitrogen oxides (NO_x).
- The facility's TV permit also addresses volatile organic compounds (VOC) and Beryllium. Neither of these pollutants triggers CAM because their uncontrolled PTE (based on 2007-2009 stack test data) does not exceed the major source threshold.

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation[1]	Pollutants Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
IU-1	MSW Building/Pit	9 VAC 5-80-720B	PM, PM_{10} and VOC	N/A
IU-2	Ash Building	9 VAC 5-80-720B	PM, PM_{10}, SO_2, HCl, Cd, Pb and Hg	N/A
IU-3	Water Heater	9 VAC 5-80-720C.2	N/A	199,999 Btu/hr
IU-4	Emergency Diesel Generator	9 VAC 5-80-720C.4	N/A	230 KW
IU-5	Lime Slacker Area	9 VAC 5-80-720B	PM, PM_{10}, VOC	N/A
IU-6	Cooling Tower	9 VAC 5-80-720A.71	N/A	N/A
IU-7	Aqueous Ammonia Storage Tank	9 VAC 5-80-720A.42	N/A	N/A
IU-8	Diesel AST	9 VAC 5-80-720B	VOC	N/A

[1]The citation criteria for insignificant activities are as follows:
9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application
9 VAC 5-80-720 B - Insignificant due to emission levels
9 VAC 5-80-720 C - Insignificant due to size or production rate

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

A public notice regarding the draft permit was published in the October 14, 2010 edition of the Alexandria Gazette. The public comment period was from October 15, 2010 through November 16, 2010.